<u>CLAIM AMENDMENTS</u>:

Please amend Claims 29, 30, 31, and 35-40 as follows:

1. - 28. (Canceled).

29. (Currently Amended) An image processing apparatus comprising:

a signal inputter, arranged to input an image signal of a frame;

a detector arranged to detect an image change by comparing the inputted image signal with a reference image signal; [[and]]

<u>a first storage unit, arranged to store the image signal input by said signal inputter; and</u>

a <u>second</u> storage unit, arranged to ~~update the reference image signal by storing the inputted image signal as the~~ <u>store the inputted image signal, that is compared with the reference image signal by said detector, as a new</u> reference image signal on a frame basis when said detector detects the image change, and not to ~~update the reference image signal~~ <u>store the inputted image signal</u> when said detector detects that there is not an image change,

wherein said detector calculates a pixel value difference between each pair of corresponding pixels using the image signal and the reference image signal, determines, if a corresponding pixel value difference is larger than a first threshold value, that a pixel

change has occurred, and determines, if the number of pixels having undergone changes in an entire frame is larger than a second threshold value, that a frame change has occurred.

30. (Currently Amended) An image processing apparatus comprising:

a signal inputter, arranged to input an image signal of a frame;

a detector arranged to detect an image change by comparing the inputted image signal with a reference image signal; [[and]]

a first storage unit, arranged to store the image signal input by said signal inputter; and

a second storage unit, arranged to ~~update the reference image signal by storing the inputted image signal as the~~ store the inputted image signal, that is compared with the reference image signal by said detector, as a new reference image signal on a frame basis when said detector detects the image change, and not to ~~update the reference image signal~~ store the inputted image signal when said detector detects that there is not an image change,

wherein said detector divides the image signal and the reference image signal into a plurality of blocks, calculates the sum total of pixel value differences between corresponding pixels using the image signal and the reference image signal in units of blocks, determines, if the sum total is larger than a first threshold value, that a corresponding block has undergone a change, and determines, if the number of blocks

having undergone changes in an entire frame is larger than a second threshold value, that a

frame change has occurred.

31. (Currently Amended) An image processing apparatus comprising:

a signal inputter, arranged to input an image signal of a frame;

a detector arranged to detect an image change by comparing the inputted

image signal with a reference image signal; [[and]]

a first storage unit, arranged to store the image signal input by said signal

inputter; and

a second storage unit, arranged to ~~update the reference image signal by~~

~~storing the inputted image signal as the~~ store the inputted image signal, that is compared

with the reference image signal by said detector, as a new reference image signal on a

frame basis when said detector detects the image change, and not to ~~update the reference~~

~~image signal~~ store the inputted image signal when said detector detects that there is not an

image change,

wherein said detector divides the image signal and the reference image

signal into a plurality of blocks, calculates a pixel value difference between each pair of

pixels corresponding to the image signal and the reference image signal, determines, if

each pixel value difference is larger than a first threshold value and a corresponding pixel

which has undergone changes in a block is larger than a second threshold value, that the

block of the corresponding pixel has undergone a change, and determines, if the number of

blocks having undergone changes in an entire frame is larger than a third threshold value, that a frame change has occurred.

32. - 34. (Canceled)

35. (Currently Amended) An image processing method comprising ~~the steps of~~:

using an image processing apparatus to perform the steps of:

inputting an image signal of a frame;

detecting an image change by comparing the inputted image signal with a reference image signal; [[and]]

storing, in a first storage unit, the inputted image signal; and

storing, in a second storage unit, ~~updating the reference image signal in accordance with a detection result in said detecting detection step~~ the inputted image signal that is compared with the reference image signal in said detecting step, as a new reference image signal on a frame basis when said detector detects the image change, and not storing the inputted image signal when said detecting step detects that there is not an image change,

wherein said updating step includes storing the inputted image signal as the reference image signal on a frame basis when said detecting step detects an image change,

and does not store the inputted image signal as the reference image signal when said

detecting step detects that there is not an image change, and

wherein said detecting step includes calculating a pixel value difference

between each pair of corresponding pixels using the image signal and the reference image

signal, determining, if a corresponding pixel value difference is larger than a first threshold

value, that a pixel change has occurred, and determining, if the number of pixels having

undergone changes in an entire frame is larger than a second threshold value, that a frame

change has occurred.

36. (Currently Amended) An image processing method comprising ~~the steps~~
~~of~~:

using an image processing apparatus to perform the steps of:

inputting an image signal of a frame;

detecting an image change by comparing the inputted image signal with a

reference image signal; [[and]]

storing, in a first storage unit, the inputted image signal; and

storing, in a second storage unit, ~~updating the reference image signal in~~

~~accordance with a detection result in said detecting detection step~~ the inputted image signal

that is compared with the reference image signal in said detecting step, as a new reference

image signal on a frame basis when said detector detects the image change, and not storing

the inputted image signal when said detecting step detects that there is not an image change,

wherein said updating step includes storing the inputted image signal as the reference image signal on a frame basis when said detecting step detects the image change, and does not store the inputted image signal as the reference image signal when said detecting step detects that there is not an image change, and

wherein said detecting step includes dividing the image signal and the reference image signal into a plurality of blocks, calculating the sum total of pixel value differences between corresponding pixels using the image signal and the reference image signal in units of blocks, determining, if the sum total is larger than a first threshold value, that a corresponding block has undergone a change, and determining, if the number of blocks having undergone changes in an entire frame is larger than a second threshold value, that a frame change has occurred.

37. (Currently Amended) An image processing method comprising ~~the steps of~~:

using an image processing apparatus to perform the steps of:

inputting an image signal of a frame;

detecting an image change by comparing the inputted image signal with a reference image signal; [[and]]

storing, in a first storage unit, the inputted image signal; and

storing, in a second storage unit, ~~updating the reference image signal in accordance with a detection result in said detecting step,~~ the inputted image signal that is compared with the reference image signal in said detecting step, as a new reference image signal on a frame basis when said detector detects the image change, and not storing the inputted image signal when said detecting step detects that there is not an image change,

wherein said updating step includes storing the inputted image signal as the reference image signal on a frame basis when said detecting step detects the image change, and does not store the inputted image signal as the reference image signal when said detecting step detects that there is not an image change, and

wherein said detecting step includes dividing the image signal and the reference image signal into a plurality of blocks, calculating a pixel value difference between each pair of pixels corresponding to the image signal and the reference image signal, determining, if each pixel value difference is larger than a first threshold value and a corresponding pixel which has undergone changes in a block is larger than a second threshold value, that the block of the corresponding pixel has undergone a change, and determining, if the number of blocks having undergone changes in an entire frame is larger than a third threshold value, that a frame change has occurred.

38. (Currently Amended) A computer program stored in a computer-readable ~~storage medium~~ memory, comprising a program for causing a computer

to execute an image processing method, the image processing method comprising the steps of:

inputting an image signal of a frame;

detecting an image change by comparing the inputted image signal with a reference image signal;[[and]]

storing, in a first storage unit, the inputted image signal; and

storing, in a second storage unit, ~~updating the reference image signal in accordance with a detection result in said detecting step,~~ the inputted image signal that is compared with the reference image signal in said detecting step, as a new reference image signal on a frame basis when said detector detects the image change, and not storing the inputted image signal when said detecting step detects that there is not an image change,

wherein said updating step includes storing the inputted image signal as the reference image signal on a frame basis when said detecting step detects the image change, and does not store the inputted image signal as the reference image signal when said detecting step detects that there is not an image change, and

wherein said detecting step includes calculating a pixel value difference between each pair of corresponding pixels using the image signal and the reference image signal, determining, if a corresponding pixel value difference is larger than a first threshold value, that a pixel change has occurred, and determining, if the number of pixels having undergone changes in an entire frame is larger than a second threshold value, that a frame change has occurred.

39. (Currently Amended) A computer program stored in a computer-readable ~~storage medium~~ memory, comprising a program for causing a computer to execute an image processing method, the image processing method comprising the steps of:

inputting an image signal of a frame;

detecting an image change by comparing the inputted image signal with a reference image signal; [[and]]

storing, in a first storage unit, the inputted image signal; and

storing, in a second storage unit, ~~updating the reference image signal in accordance with a detection result in said detecting step,~~ the inputted image signal that is compared with the reference image signal in said detecting step, as a new reference image signal on a frame basis when said detector detects the image change, and not storing the inputted image signal when said detecting step detects that there is not an image change,

wherein said updating step includes storing the inputted image signal as the reference image signal on a frame basis when said detecting step detects the image change, and does not store the inputted image signal as the reference image signal when said detecting step detects that there is not an image change, and

wherein said detecting step includes dividing the image signal and the reference image signal into a plurality of blocks, calculating the sum total of pixel value differences between corresponding pixels using the image signal and the reference image signal in units of blocks, determining, if the sum total is larger than a first threshold value,

that a corresponding block has undergone a change, and determining, if the number of

blocks having undergone changes in an entire frame is larger than a second threshold value,

that a frame change has occurred.

40. (Currently Amended) A computer program stored in a

computer-readable ~~storage medium~~ memory, comprising a program for causing a computer

to execute an image processing method, the image processing method comprising the steps

of:

inputting an image signal of a frame;

detecting an image change by comparing the inputted image signal with a

reference image signal; and

storing, in a first storage unit, the inputted image signal; and

storing, in a second storage unit, ~~updating the reference image signal in~~

~~accordance with a detection result in said detecting step,~~ the inputted image signal that is

compared with the reference image signal ins aid detecting step, as a new reference image

signal on a frame basis when said detector detects the image change, and not storing the

inputted image signal when said detecting step detects that there is not an image change,

wherein said updating step includes storing the inputted image signal as the

reference image signal on a frame basis when said detecting step detects the image change,

and does not store the inputted image signal as the reference image signal when said

detecting step detects that there is not an image change, and

wherein said detecting step includes dividing the image signal and the reference image signal into a plurality of blocks, calculating a pixel value difference between each pair of pixels corresponding to the image signal and the reference image signal, determining, if each pixel value difference is larger than a first threshold value and a corresponding pixel which has undergone changes in a block is larger than a second threshold value, that the block of the corresponding pixel has undergone a change, and determining, if the number of blocks having undergone changes in an entire frame is larger than a third threshold value, that a frame change has occurred.